



EMMY NOETHER LECTURER 2026

KAREN VOGTMANN

CITATION

The 2026 ICM Emmy Noether Lecturer is Karen Vogtmann for her fundamental contributions to Geometric Group Theory and Low Dimensional Topology.

Karen Vogtmann, a leading mathematician of her generation, was a pioneer of the modern approach to the study of automorphism groups of free groups, one of the richest and most active interfaces of geometry and group theory. She established an agenda that has guided the dramatic developments in this area across forty years, starting with the celebrated Culler-Vogtmann paper of 1986, *Moduli of Graphs and Automorphisms of Free Groups*, which introduced the geometric object, Outer Space. Her geometric approach to automorphism groups of free groups emphasizes the profound links with mapping class groups of surfaces and arithmetic lattices in semisimple Lie groups. The power and beauty of this three-way analogy has drawn many early career researchers into the field of geometric group theory, building an enduring human aspect of Vogtmann's legacy. The locus of Vogtmann's ideas extends beyond pure mathematics, including deep connections with quantum field theory and the analysis of phylogenetic trees.

Karen Vogtmann earned a Ph.D. in 1977 at the University of California, Berkeley. She is Professor of Mathematics at the University of Warwick, since 2013, and is also the Goldwin Smith Professor of Mathematics Emeritus at Cornell University, since 2015. Early in her career, she held positions at University of Michigan, Brandeis University, and Columbia University.

Among her many awards, Karen Vogtmann was an invited speaker at the International Congress of Mathematicians in 2006, a recipient of the Humboldt Research Prize in 2014, and a recipient of the Polya Prize in 2018. Her honors include election as member or fellow of Academia Europaea (2020), the Royal Society (2021), the U.S. National Academy of Sciences (2022), and the American Academy of Arts and Sciences (2023).